



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,778	08/07/2001	John Cooper	P280281	3688

909 7590 11/18/2004

PILLSBURY WINTHROP, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER

GREENE JR, DANIEL LAWSON

ART UNIT	PAPER NUMBER
----------	--------------

3641

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/830,778

Applicant(s)

COOPER ET AL.

Examiner

Daniel L Greene Jr.

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
4a) Of the above claim(s) 1-28 and 30-34 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 29 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/13/04.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. The Office would like to thank the applicant for pointing out that Sections 4 and 6 of the requirement for restriction mailed 7/13/2004 only applies to Groups I, III and IV. Since applicant elected Group II, the requirement of Sections 4 and 6 are not applicable to applicants' election and hereby withdrawn for Group II.

2. Applicant's election with traverse of the invention drawn to an initiating element, wherein the confinement sleeve is steel, the initiating portion power explosive is PETN, the initiating high burn-rate pressurizing initiator is potassium picrate and the initiating portion additional material is explosives in the reply filed on 10/13/04 is acknowledged. The traversal is on the ground(s) that:

A. The examiner must make a requirement for restriction in the first action on the application containing the generic claim per 37 C.F.R 1.146, and

B. Applicant states that the general purpose of an election-of-species requirement is to assist the examiner with the search, wherein a complete search had already been undertaken by the examiner.

This is not found persuasive because:

A. In accordance with 37 CFR 1.142 (a), although the examiner should normally make a requirement for restriction before any action on the merits; it may be made at any time before final action, and

B. Although full faith and credit has been given to the search conducted by Examiner Blackner, the instant Examiner is required to update said search. Without the exact terms and

thought process the previous Examiner utilized in searching, the instant Examiner is required to perform an independent search, thus the restriction functioned properly.

The requirement is still deemed proper and is therefore made FINAL.

3. Claims 1-28 and 30-34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions and species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10/03/04.

An office action on the merits of the instant application follows.

Information Disclosure Statement

4. The IDS received 4/13/04 has been considered and is attached to the instant Office Action.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claim 29 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,385,098 to Lindqvist et al.

Lindqvist clearly illustrates a detonator comprising a hollow detonator shell (1) having an open end and a closed end, an igniting device (6) at the open end of said shell, optionally a delay element (4) adjacent said igniting device, an initiating element (3) comprising an initiation portion and optionally a transition portion, and optionally a base charge (2) characterized in that said initiation portion is at least partially contained within a confinement sleeve and comprises an intimate mixture of a relatively large particle size, porous, powdered explosive having interstitial

spaces, and a relatively small particle size, high burn-rate pressurizing initiator located within said interstitial spaces, in figure 2 and column 4 lines 67-68, column 5 line 1, column 6 lines 5-9, lines 16-35, lines 45-51, and lines 62-64, column 7 lines 1-3, lines 6-13, and lines 28-43, column 8 lines 26-39 and lines 66-68, and column 9 lines 1-5 and lines 41-50.

Response to Arguments

6. Applicant's arguments filed August 29, 2003 have been fully considered but they are not persuasive. In regards to applicants argument that Lindqvist does not describe or suggest a high-burn rate pressurizing initiator within interstitial spaces of a powdered explosive, the Office would like to direct applicants attention to column 10 lines 36-37, column 11 lines 5-9 and 19-20 wherein granules 2mm X 0.5mm are mixed with 200-micron particles, and column 12 lines 3-6 and 15-33 wherein Lindqvist discloses relatively large sized (between 10 and 2000 microns) porous, granulated secondary explosive material mixed with a combustion catalyst (high-burn rate pressurizing initiator) in the form of a fine-grained powder, which clearly occupies the interstitial spaces as defined by applicants disclosure (see page 6 lines 8-11).

Lindqvist clearly discloses that the intimate mixture is preferably formed by dry mixing in column 6 lines 16-19 "the desired intimate mixture of catalysts and explosive...is preferably made by dry mixing the components" and column 12 lines 24-27.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel L Greene Jr. whose telephone number is (703) 605-1210. The examiner can normally be reached on Mon-Fri 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J Carone can be reached on (703) 306-4198. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DIG 11/15/04



MICHAEL S. FUNG
SUPERVISORY PATENT EXAMINER